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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,818	06/27/2003	Robert J. Sweeney	279.636US1	8382
45458 7590 01/27/2010 SCHWEGMAN, LUNDBERG & WOESSNER/BSC-CRM PO BOX 2938 MINNEAPOLIS, MN 55402				
EXAMINER STOKLOSA, JOSEPH A				
ART UNIT 3762		PAPER NUMBER		
NOTIFICATION DATE 01/27/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/18/2009 have been fully considered but they are not persuasive.
2. Applicant argues that Sweeney and Leon in combination or alone fail to disclose identifying lobes each being an excursion of more than a curvature threshold value from a baseline in the computed curvature series. Examiner respectfully disagrees. Sweeney is directed to using autocorrelation techniques to determine a fibrillation cycle. Examiner considers Sweeney to necessarily sample the cardiac waveform, wherein the cardiac waveform has a plurality of lobes, and wherein the lobes of interest (i.e. lobes not related to noise) are generally the cardiac depolarization waveforms in the signal. Examiner considers Sweeney to disclose using the cardiac depolarization waveforms for autocorrelation since Sweeney also discloses a method of counting R waves for determining the fibrillation cycle length. Sweeney must sample the signal at some rate and the processing means then will necessarily re-construct the waveform (generation of a series of characteristic points) from the sample points of the curvature series. Examiner considers the curvature series to necessarily be greater than a curvature threshold baseline (i.e. the cardiac waveform of interest and not signal noise). Further the constructed signal can then be expressed in mathematical form (a function of the series of characteristic points) for use in autocorrelation.
3. Applicant argues that the computed characteristic points are not the same as the sample points. Examiner respectfully disagrees. Applicant's claims, as written, read on

the sample points being the same as the characteristic points, since applicant has failed to further limit and distinguish within the claims, as written, any difference between the sample points and the generated characteristic points. Examiner has considered the computation of a curvature series to simply be the signal acquisition and the generation of the characteristic points to relate to assembly of the sample points.

4.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH STOKLOSA whose telephone number is (571)272-1213. The examiner can normally be reached on Monday-Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George R Evanisko/
Primary Examiner, Art Unit 3762

Joseph Stoklosa
Examiner
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1/15/2010